Transport Canada Transports Canada

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TRANSPORTATION IN CANADA 2012

Overview Report

Canada

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Minister of Transport | Ministre des Transports

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His Excellency the Right Honourable David Johnston, C.C., C.M.M., C.O.M., C.D.
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Excellency,

It is with great pleasure that I submit *Transportation in Canada*,. 2012, the annual report on the state of transportation in Canada. This marks the sixth report produced in conformity with the statutory requirements spelled out in Section 52 of the *2007 Canada Transportation Act*.

The report is based on the most current data and information needed to understand the challenges and opportunities facing Canada's transportation system and its stakeholders. The report provides an account of key events, current and future issues, and efforts for sustaining an efficient, clean, safe and secure transportation system. It is complemented with an extensive addendum comprising of transportation statistics, figures, charts and maps.

In 2012, Canada's transportation system continued on its path of recovery following the economic difficulties since 2008. Activity, whether measured in terms of passengers or freight, was generally up while accident rates were generally unchanged or improving throughout the system.

I hope that this report will prove useful to you and all parties with an interest in continuing to build a safe, secure, efficient and environmentally sustainable transportation system in Canada.

Sincerely,

The Honourable Lisa Raitt, P.C., M.P.
Minister of Transport

Transportation in Canada is Transport Canada's flagship economic and statistical publication. The report is produced as a means for the Minister of Transport, Infrastructure and Communities to meet his obligation to report annually to Parliament on the state of transportation in Canada, as prescribed by Section 52 of the ***Canada Transportation Act*** and which reads as follows:

Industry overview

52. (1) Each year before the end of May, the Minister shall, using the most current information available, prepare and lay before both Houses of Parliament a report providing a brief overview of the state of transportation in Canada.

Industry review

(2) Every five years, the report referred to in subsection (1) shall be expanded to a comprehensive review of the state of transportation in Canada which shall include

(a) the financial performance of each mode of transportation and its contribution to the Canadian economy;

(b) the extent to which carriers and modes of transportation were provided resources, facilities and services at public expense;

(c) the extent to which carriers and modes of transportation received compensation, indirectly and directly, for the resources, facilities and services that were required to be provided as an imposed public duty;

(c.1) the long term outlook and trends in transportation in Canada; and

(d) any other transportation matters that the Minister considers appropriate.

Transportation in Canada, 2012 is the report's 21st edition and the 6th edition since amendments to Section 52 of the Act came into effect in 2007. It is made up of an Overview Report accompanied by a Statistical Addendum. The Overview Report presents selected highlights of noteworthy events in the transportation sector in 2012 and includes the most recent key statistics. The Statistical Addendum is comprised of more than 270 tables, charts, figures and maps, which support and greatly enrich the Overview Report. The Statistical Addendum presents the most recent data available as well as, when appropriate, historical data going back by as much as 10 years. It contains relevant and detailed information on a large number of areas including: employment, trade and tourism, energy consumption and accident and incident statistics by mode. Addendum tables and figures also cover transportation infrastructure, industry structure, activity levels and performance, all of which makes for a complete, comprehensive and informative picture.

The brief overview of the state of transportation in Canada in 2012 presents a number of selected highlights from the year across all modes of transportation (air, marine, rail and road) and views them through five lenses: government spending and revenues, marketplace and infrastructure, the environment, safety and security and macroeconomic considerations that underpin the demand for passenger and goods transportation in Canada. These highlights are not an attempt to provide a complete narrative of all events that shaped transportation in Canada in 2012 but are meant to present the reader with a broad overview of the current state of Canada's transportation system. Readers interested in going beyond the highlights are invited to consult the Statistical Addendum, one of the most complete and in-depth sources of transportation data produced in Canada. Readers may also be interested in consulting the 2011 edition of this report, a comprehensive report providing significantly more in-depth analysis on issues still relevant to today's transportation system.

The movement of people and goods lies at the cornerstone of our modern and interconnected world. Canadians expect to be able to travel and expedite the movement of goods locally, across the country or around the world in an efficient, clean, safe and secure manner. Canada's transportation system enables them to do so, allowing people to connect and making it possible for goods to reach markets across vast and often challenging landscapes. Transportation methods and systems in Canada are also constantly evolving to meet new challenges, reflecting a society in a constant state of change, shaped by changing demographics, new ways to purchase goods and the emergence of new markets in which to sell goods.

Against this landscape, a changing economic environment is modulating demand, shifting transportation needs from one region to the next and from one trading partner to the next. As the supply of transportation services adapts to this environment, it creates opportunities for Canada to explore new markets, better serve its domestic markets and mitigate the impacts of geography on the movements of people and goods.

The Overview Report and the Statistical Addendum presented here rely on a wide variety of external sources and while the utmost care has been taken to provide accurate information, Transport Canada cannot always guarantee its accuracy as different and disparate sources often bear the onus for data validation. For clarity, footnotes are used to indicate situations where data validation may be a concern. As well, given the constraints of the statutory deadlines under which this report is produced, some issues were not pursued if the validity of data was not adequately confirmed and it is only in exceptional cases that estimates are used to redress data limitations. And finally, this report is not an attempt to present a prospective view of Canada's transportation system; readers are encouraged to exercise proper caution.

Transportation in Canada 2012 and previous editions are available at no charge at Transport Canada Publications Online (http://www.tc.gc.ca/eng/policy/anre-menu.htm).

- Canada's economic momentum slowed in 2012. Real Gross Domestic Product (GDP) growth for the year was a modest 1.8 per cent. For the year, household consumption was constrained by high debt levels, tighter borrowing requirements and some cooling in the housing market. Despite low to negative real interest rates, business investment was constrained by economic uncertainty and deficient demand, particularly in export markets. GDP growth was also curtailed by government spending reductions and the expiry of short-term stimulus items introduced after the economic downturn in 2008–2009.
- Exports grew slightly, up 1.6 per cent in value terms, following two years of gains in excess of 10 per cent. The United States accounted for three-quarters of Canada's total exports, up slightly from 2011. With the European Union falling into a double-dip recession, Canada's exports to the EU dropped by 4.0 per cent. China also saw a pullback in growth rates, but Canadian exports there still grew by almost 15 per cent. Bitumen, vehicles and parts, wheat and canola were notable bright spots in terms of year-to-year growth in exports. Exports of natural gas fell owing to pipeline bottlenecks, while exports, in dollar terms, of coal, nickel and aluminum fell due to weak commodity prices and low demand.
- The value of imports rose a modest 3.5 per cent in 2012, following back-to-back annual increases above 10 per cent, year-over-year. Vehicle engines and parts as well as transport truck tractors saw strong gains in the 15 per cent range. Natural gas and petroleum products saw drops in excess of 20 per cent. In terms of trading partners, imports from the United States rose 5.6 per cent (climbing back above a 50 per cent share of imports by value); imports from the European Union fell 3.0 per cent, mainly due to a decline in the value of the Euro; and imports from China grew by 5.2 per cent. The value of imports from Iraq, almost exclusively petroleum, jumped 62 per cent, enough to make it our 13th-largest source of imports in terms of value in 2012 and our third most important foreign source of petroleum.
- Canada's terms of trade (the ratio of export prices to import prices) fell 1.2 per cent in 2012.
- Foreign exchange rates were fairly stable in 2012: The average exchange rate of United States dollars for Canadian dollars averaged close to par in 2012 (0.9996 USD/C$), up slightly from 2011 (0.9891 USD/C$). Exchange rates fluctuated roughly between 0.98 and 1.03 USD/C$ during 2012. The average value of the Euro was 1.2850 per Canadian dollar in 2012, down from 1.3767 Euro/C$ the previous year. A British pound traded for 1.5840 C$ on average, basically unchanged from 2011. Exchange rates for the Chinese renminbi and Japanese yen in terms of Canadian dollars were also relatively unchanged, on average, against 2011 rates.
- The Bank of Canada bank rate held at 1.25 per cent throughout 2012 and the business prime rate remained stable at 3.0 per cent. Benchmark Government of Canada 10-year bond yields averaged 1.85 per cent over the year, with little variance.
- Corporate operating profits across all industries held steady, following solid gains coming out of the 2008–2009 recession. Operating profits in the Transportation and Warehousing sector rose by an above-average 11.2 per cent.
- For the year, construction, notably residential and manufacturing, led by transportation equipment, were the main contributors to growth in goods production.
- GDP by industry data indicated strong growth in the construction sector (notably residential), up 4.0 per cent in value-added for the year. Manufacturing saw a decline in GDP of 3.3 per cent. The transport sector was paced by gains in marine (up 4.5 per cent), rail (up 3.9 per cent) and air (up 3.8 per cent). Truck transport grew by a more modest 0.9 per cent.
- Investments in capital assets including buildings, infrastructure and machinery and equipment grew strongly for the transportation sector, particularly for transit, pipelines and aviation. Preliminary estimates indicate capital investments for 2012 at $5.2 billion for transit, $3.6 billion for pipelines and $2.2 billion in the air industry.

- New job creation in Canada kept pace with the growth in the working-age population; the employment rate held steady at 61.8 per cent in 2012, roughly the same rate as seen during the previous four years. Employment growth in the Transportation and Warehousing sector was below 1 per cent. Self-employment was stable, while paid employment grew modestly; hours worked were flat and wages increased slightly (by 0.8 per cent).
- A new Statistics Canada survey of job vacancies showed that the job vacancy rate held steady at around 2 per cent for the Transportation and Warehousing sector in 2012. There were approximately 2.5 unemployed persons for every job vacancy in the sector, roughly half the average economy-wide ratio of unemployed persons to job vacancies.
- Employment in the transportation sector in 2012 reached 894,233, a 2.2 per cent rise compared to 2011. The trucking sector had the highest number of employees, 175,785, up 2.9 per cent from 2011. Transportation employment is now above its pre-economic downturn levels.
- All transport modes for which there is data registered gains in productivity in 2011 (the most recent year for which data is available). Freight rail experienced an increase of 6.6 per cent in multifactor productivity in 2011 while Air transport's multifactor productivity increased 4.8 per cent. Productivity in the Public Transit sector rose by 2.7 per cent. (Multifactor productivity measures track the relative changes in outputs from additional inputs including: labour, vehicles, machinery and equipment and information and communication technologies (ICTs)).
- Statistics Canada's Raw Materials Price Index fell by an average of 6.3 per cent in 2012, while the Industrial Products Price Index rose by a modest 0.5 per cent. Within the latter category, the motor vehicles and other transportation equipment component rose at a rate of 1.0 per cent.
- The all-items Consumer Price Index (CPI) rose by 1.5 per cent on the year. The core CPI, which excludes food, fuel and indirect taxes, rose by 1.2 per cent. Averaging 2.0 per cent, inflation in the consumer transportation component was higher than the overall CPI. Of the transportation sub-categories included in the CPI basket, local commuter transportation and gasoline prices had the highest increases (both at 2.5 per cent).
- In 2012 the retail price of road gasoline and diesel increased by 2.9 and 0.7 per cent respectively as measured by a volume-weighted index provided by M.J. Ervin and Associates. Average price changes for unleaded fuel over the year ranged from no change in Victoria to a 5.1 per cent increase in Quebec City. Diesel prices jumped 8.6 per cent in Yellowknife, but the rest of the country experienced more moderate average price fluctuations, ranging from plus 4.8 per cent in Quebec City to minus 1.1 per cent in Toronto.
- The price of jet fuel increased 2.6 per cent, marine bunker fuel by 9.5 per cent and rail diesel by 3.7 per cent.
- In world oil markets, the gap between Brent and West Texas Intermediate benchmark oil prices received a great deal of attention. Brent saw a small (1.9 per cent) price increase relative to 2011, while WTI was flat (0.2 per cent). An even larger gap developed for Canadian crude exports, with the average 2012 price for the Canadian Heavy benchmark falling by 6.4 per cent and the average price for Canadian par falling by 8.9 per cent. Growing domestic supplies in the United States and pipeline bottlenecks for Canadian exports were blamed for the growing price differentials.
- In response to tight capacity in the pipelines, shipments of oil and gas by rail tankers grew by 30.6 percent in 2012 to reach 20.8 million tonnes. This is a 58 per cent increase compared to 2009.
- The most recent energy consumption estimates available (for 2011), show that transportation energy use (excluding pipelines) increased by 1.1 per cent. The aviation sector used 1.7 per cent less energy than the previous year, while rail and road used 1.9 per cent and 2.4 per cent more energy respectively. Energy consumption by pipelines decreased by 0.8 per cent. Road transportation is the largest consumer of energy, representing roughly 85 per cent of total energy use in the transportation sector.

Overall revenues and expenditures

- Transportation spending totaled $19 billion for the federal, provincial and territorial governments in the 2011-2012 fiscal year. Overall spending was down almost 14.7 per cent compared to 2010-2011.
- For the fiscal year, receipts from transportation users (including fuel taxes, licenses and registrations), totaled $16.9 billion for the federal and provincial/territorial governments. This amount represented an increase of 3.3 per cent over the previous year. Fuel taxes rose 4.5 per cent to $13.7 billion. Other receipts collected by the federal government rose by 7.7 per cent. The national total for transportation-related license and registration fees collected by the provinces and territories fell by 5.2 per cent to $2.2 billion.
- Including transfers to the provinces and territories, the federal government spent $2.8 billion, an increase of 1.9 per cent over the previous year.
- Provincial spending fell by 4.1 per cent, or $0.7 billion. Capital expenses on additions and improvements accounted for 56 per cent of provincial spending, and transfers to the local level made up 17 per cent of the total.
- Funding to municipalities and local governments grew by $92 million from the provinces. Gas tax funding for the provinces, territories as well as local and municipal governments totaled $2.2 billion from the federal government.
- For 2011-2012, Transport Canada accounted for 56 per cent of federal operating and program expenditures. The Coast Guard followed, with a 27 per cent share. Total federal operating and program expenses (excluding grants and contributions) fell by over 10 per cent, or $143.7 million.
- Federal funding was split between transit projects (15 per cent, not including gas tax funding), highways, roads and bridges (35 per cent), rail (25 per cent), and marine (15 per cent).
- Combined provincial and territorial spending was predominantly directed at highways and roads (78 per cent), followed by transit and marine (16 and 2 per cent, respectively).
- Urban transit revenues grew by 5.5 per cent in 2012, but ridership grew only 2.5 per cent. The gap between these two measures of growth has been persistent and growing for most of the past ten years.
- The federal government collected $5.0 billion from fuel taxes, with $4.9 billion coming from road users. Provincial governments collected $8.6 billion in fuel taxes and sales tax equivalents charged on the sale of fuel.

Air

- In 2012–13, the Airports Capital Assistance Program funded 45 safety-related projects at 29 airports for an estimated cost of over $31.4 million. Examples include runway rehabilitation at Churchill Falls ($9.5 million), airside electrical rehabilitation at Sault Ste. Marie ($592,500) and a new snow blower at Lethbridge ($410,600).
- The federal Building Canada Plan (BCP) and the Province of Newfoundland and Labrador each provided $3.3 million to resurface and upgrade Gander International Airport's 3.2-km runway 03/21, while the federal Gateways and Border Crossings Fund (GBCF) and the Province of Prince Edward Island each provided $1.2 million for the $3.8-million expansion of Charlottetown Airport's passenger terminal, completed in December 2012. The airport authority supplied the balance of the funds, as well as $3.2 million for terminal modernization.
- In 2011–12, revenues from Transport Canada's (TC) 17 airports and single water aerodrome were $12.2 million; total expenditures (operating and capital) for these aerodromes was $47.4 million.
- Nunavut's territorial government is investing $300 million in the Iqaluit Airport Improvement Project to build a new terminal, expand the existing apron, upgrade the runway and install a new lighting system. In December 2012, three bidding teams were shortlisted to participate in the request for proposals.
- Yukon's territorial government is investing $7.4 million over two years to extend water and sewer services to the south commercial area at the Erik Nielsen Whitehorse International Airport.

- Total rent paid to the federal government by National Airport System (NAS) airport authorities is expected to be $282.6 million in 2011, an 11 per cent increase from 2010.
- In 2011–12, the fedral government collected $631 million from the Air Traveller Security Charge. During that same period, the Canadian Air Transport Security Authority (CATSA) expenditures weres $515 million. ATSC revenues are also used to fund Transport Canada's regulatory and oversight activities and the presence if officers from the Royal Canadian Mounted Police on certain flights.

Marine

- The Gateways and Border Crossings Fund (GBCF) is investing $85.6 million between 2012 and 2014 in the construction of a railway and an intermodal port station at the Port of Saguenay ($15 million), the construction of a multi-user dock at the Port of Sept-Îles ($55 million) and the optimization of container handling areas, as well as software upgrades for the Port of Montreal ($15.6 million). The GBCF also invested $54 million to upgrade the Richmond Terminal and extend the South End Terminal at the Port of Halifax and $4.5 million for the new Diamond Jubilee cruise ship terminal at the Port of Saint John.
- In 2011–12, TC spent $26.3 million on the Ferry Services Contribution Program, which supports the private operators of three interprovincial ferry services in Eastern Canada; the amount of that contribution is expected to grow to $32.2 million in 2012–13. In addition, TC provided a $27.5-million grant in 2012–13 to the Government of British Columbia for ferry services operated by BC Ferries.
- Budget 2012 extended funding for two years for TC's Port Divestiture Program. The department received $21 million over two years to transfer ports and $6.3 million in 2012–13 to operate and maintain non-divested ports. In 2011–12, six ports were divested; contributions in support of these divestitures totalled $27.9 million.
- TC spent $12.3 million to operate its 61 ports in 2011–12 and invested $11.6 million for capital projects. It collected approximately $10.4 million in revenues. For 2012–2013, it estimates spending $12.6 million to operate the ports and $6.9 million for capital projects while collecting approximately $9.3 million in revenues.
- TC launched the Shore Power Technology for Ports (SPTP) program designed to reduce emissions in the Canadian transportation sector and improve air quality. The SPTP is a $27.2-million five-year program that provides cost-shared funding for the deployment of marine shore power technology at Canadian ports. This technology allows docked ships to be powered by the local electrical grid instead of their own auxiliary diesel engines, reducing the emissions of air pollutants and greenhouse gases.
- The Canadian Coast Guard awarded a $6-million contract to Seaway Marine of St. Catharines for repairs to the icebreaker *CCGS Amundsen*. It also awarded a $9.5-million contract to STX Canada Marine for the design of the future Polar Icebreaker *CCGS John G. Diefenbaker,* the Coast Guard's future flagship to be built by the Vancouver Shipyards Company. This project is part of the 2010 National Shipbuilding Procurement Strategy.

Rail

- TC committed nearly $13 million under the Grade Crossing Improvement Program in 2012 to improve 61 crossings and replace LED bulbs at 749 other crossings across the country.
- The federal government invested $3.4 million and VIA Rail $2 million to build a new and improved train station in Windsor. The station is completely accessible and has a capacity of 300 passengers.
- In the Lower Mainland of British Columbia, construction has begun on the new, 11-km Evergreen Skytrain Line connecting Coquitlam to Vancouver via Port Moody and Burnaby. The federal government is contributing $417 million from the Building Canada Fund (BCF) and the Public Transit Capital Trust towards this project. The provincial government is contributing $583 million and Translink $400 million. Work is expected to be completed in 2017.
- Tunnel boring is underway for the Toronto-York Spadina Subway Extension, which will extend Toronto's subway system to York Region. Service on the new extension is planned to start in the fall of 2016. The federal contribution for this project through the BCF is $697 million, while the provincial government is providing $870 million, Toronto $526 million and York $352 million.

Road

- The Gateways and Border Crossings Fund (GBCF), a Building Canada Plan (BCP) component, invested $250.8 million in fiscal year 2012–13 to improve infrastructure at key locations, including major border crossings between Canada and the United States.
- Major road projects funded under the BCP and completed in 2012 include: the Highway 104 Phase 1 project in Nova Scotia ($25 million), the Cameron Heights Drive Interchange along the Southwest Edmonton Ring Road ($12.5 million) and Highway 10 improvements north of Brandon, Manitoba ($3.8 million).
- A number of major highway projects were completed in partnership with the Government of Quebec, including Highway 30, Highway 50 and Highway 175. These projects represent a total federal investment of over $1 billion from the BCF and the Canada Strategic Infrastructure Fund and more than $2 billion from the Province. In New Brunswick, the Route 1 Gateway project was completed in the fall of 2012; this project received $210 million in federal funding and $370 million in provincial funding.
- Across the country, provincial governments continued to invest substantial funds in maintaining their road networks. This includes: Quebec ($3.4 billion), Ontario ($2.4 billion), B.C. ($960 million), Saskatchewan ($582 million) and Nova Scotia ($363 million).
- Announced in May 2012, the ecoTechnology for Vehicles (eTV) Program is a five-year, $38-million program that conducts in-depth safety, environmental and performance testing on new and emerging advanced vehicle technologies for passenger cars and heavy-duty trucks. Results are being used by the federal government to inform the development of future vehicle environmental regulations and guidelines and to help inform the development of non-regulatory codes and standards that support the integration of new vehicle technologies.
- Almost $2.5 million in federal financial support was provided in fiscal year 2012–13 toward a broad range of technology planning strategies and investments. These include regional intelligent transportation system architectures and best-practice guidelines for technology investments, the deployment of border wait-time systems for commercial vehicles on Highway 15 in B.C. and upgrades of critical technology applications such as weigh-in-motion to facilitate commercial vehicle traffic flow and environmental sensor stations to improve winter road maintenance.
- The Yukon government is investing over $36 million in a number of major road projects, including $15 million for the Haines Road and north Alaska Highway and $8.8 million for reconstructing and resurfacing of 180 km of the Campbell Highway.
- The Government of Quebec announced in its 2013–14 budget speech that capital investments on all infrastructure, including transportation, will be capped at $9.5 billion a year, on average, over the next five years.

Other

- Through its Transportation Development Centre (TDC), Transport Canada conducts multimodal R&D initiatives in strategic technologies to promote transportation innovation in collaboration with transportation industry partners. During 2012, TDC invested $6 million in R&D activities, with a matching amount being invested by its partners.
- In 2012–13, Transport Canada conducted 19 Federal Contaminated Site Action Plan (FCSAP) remediation projects, four environmental site assessments and eight remediation projects from departmental funds at airports and ports for a total expenditure of $9.5 million.

Economic Marketplace and Infrastructure

- Passenger traffic at Canadian airports increased 4.8 per cent in 2012, to reach 118.5 million enplaned and deplaned passengers. Domestic, Canada-U.S. and other international traffic increased year-over-year by 5.3 per cent, 4.2 per cent and 3.7 per cent respectively. Air Canada (including its regional feeder Air Canada Express) and WestJet carried 34.9 million and 17.4 million passengers respectively.
- Freight traffic at Canadian airports was 1.1 Mt in 2012, up 1.9 per cent from 2011. Domestic traffic increased year-over-year by 0.7 per cent, while Canada-U.S. and other international traffic decreased year-over-year by 2.4 per cent and 2.9 per cent respectively. The value of Canada's international air cargo trade decreased by 1.9 per cent from 2011 levels to reach $108 billion.
- The number of take-offs and landings reported at Canadian airports totalled 6.5 million in 2012, a 3.6 per cent increase from the 6.2 million movements reported in 2011. Itinerant movements increased 6.1 per cent in 2012 compared to 2011, while local movements decreased 3.3 percent. Commercial carrier itinerant movements increased by 0.3 per cent to 3.9 million and general aviation movements decreased by 1.4 per cent (to 2.5 million).
- In 2011, the National Airport System (NAS) airport authority revenues were $2.9 billion, an increase of 5.3 per cent over 2010. The airport authorities in Toronto, Montreal, Vancouver and Calgary accounted for 78 per cent of these revenues; 40 per cent of revenues earned were from aeronautical sources, 27 per cent from non-aeronautical sources and 30 per cent were derived from passenger facility fees.
- Revenues from Airport Improvement Fees yielded $857.7 million in 2011, an increase of $45.9 million or 5.7 per cent over 2010. Airport operating expenses remained virtually unchanged from 2010 at $1.1 billion, while interest charges increased by 4 per cent to $676 million. The aggregate net income for all airport authorities decreased 31 per cent to $137 million in 2011. Total capital expenditures by NAS airport authorities in 2011 amounted to $600 million, up 7 per cent from 2010.
- The Greater Toronto Airport Authority and American Express entered into a partnership that will see some American Express cardholders enjoy fast-track lanes for security screening, complimentary valet services, complimentary internet services and a dedicated waiting line for taxi and limousine pick-ups.
- Ottawa Macdonald-Cartier International Airport resurfaced its 2,538-metre runway 07/25 during the summer of 2012. This $14-million project was the first resurfacing for this runway since 1994.
- The Winnipeg Airport Authority won a Winnipeg Accessibility Award for the design of its new terminal, opened in October 2011. The award recognized the importance that universal design for accessibility played in planning this new building.
- Air Canada's earnings in 2012 were $131 million on revenues of $12.1 billion, while WestJet's earnings were $242.4 million on revenues of $3.4 billion. Air Canada's revenues were up 4.4 per cent compared to 2011 while WestJet's were up 11.6 per cent.
- Air Canada announced the creation of a new low-cost subsidiary, *rouge*, which will cater to the leisure Caribbean and European markets. *rouge* is expected to launch on July 1, 2013 with 200 employees and a fleet of two Boeing B767-300ERs and two Airbus A319s, currently operated by Air Canada; the fleet could increase to 20 B767s and 30 A319s over time. Air Canada also announced the purchase of two Boeing B777-300ERs, which will bring its B777 fleet to 20 and the transfer of all of its 15 Embraer E175s to Air Canada Express operator Sky Regional. Finally, another Air Canada Express operator, Jazz converted six options to firm orders for Bombardier Q400 aircraft.
- WestJet announced the creation of a new Calgary-based regional carrier, Encore, for which it ordered 20 new Q400s, with an option on 25 additional aircraft. Encore is expected to launch in the second half of 2013. WestJet also modified the cabins of its Boeing B-737s to accommodate a premium economy section and took possession of its 100th Next Generation B-737.

- Cargojet moved into a new 800-square-metre facility, part of Edmonton International Airport's 4,700-square-metre cargo village. The facility will provide warehousing space, trucking docks and airside access to a dedicated cargo ramp.
- Canadian carriers launched a number of new routes in 2012. Air Canada began serving New York (Kennedy) from Toronto, Goose Bay from Deer Lake and Liberia (Costa Rica) from Montreal and Toronto. WestJet began serving Whitehorse from Vancouver, Chicago from Vancouver and Calgary, Cancun from Thunder Bay and 12 seasonal sun-destinations and New York (La Guardia) from Toronto. Porter Airlines began flying to Timmins and Washington (Dulles) from Toronto (Billy Bishop). Cargojet launched a freighter service between Hamilton, Halifax, Brussels and Cologne. Meanwhile, Air Canada suspended its Montreal-Houston, Toronto-Memphis, Toronto-Allentown and Vancouver-San Diego flights.
- Several foreign carriers launched new routes in the Canadian market in 2012, including Ethiopian Airlines (Toronto-Addis Ababa), Condor (Toronto-Frankfurt), Sichuan Airlines (Vancouver to Chengdu via Shenyang – the first flight between North America and Inland China), Virgin Atlantic (Vancouver-London), Air Greenland (Iqaluit-Nuuk), Philippine Airlines (Toronto to Manila via Vancouver), United Express (Kelowna-Los Angeles) and ABX Cargo (Vancouver-Seattle). At the same time the landscape of regional U.S. carriers changed during 2012 as a result of airline mergers. Chautauqua Airlines returned to Canada while Comair, Colgan Air, ExpressJet, Mesaba and Mesa all exited the Canadian market.
- As of December 2012, Canada's open Air Transport Agreements (ATAs) cover approximately 72 per cent of Canada's international air traffic. Canada has also concluded open agreements with or offered open agreements to countries collectively representing 91 per cent of Canada's international two-way merchandise trade. Canada now ranks third in the number of open ATAs in place according to the International Civil Aviation Organization (ICAO).
- In 2012, Canada concluded or expanded ATAs with Bahrain, Colombia, Curacao, Gambia, India, Nicaragua, Paraguay, St. Martin, Saudi Arabia, Senegal, Sierra Leone and Uruguay as part of its *Blue Sky* Policy. The Asia-Pacific and Latin America are two regions of focus for this policy in the coming years.
- The *Aerospace Review*, carried out by an independent panel and selected industry representatives, released its report, *Beyond the Horizon: Canada's Interests and Future in Aerospace*, in November 2012. It discussed public policies and programs that will help Canada maintain and build on its status as a global aerospace power and suggested policy directions that would assist in maintaining Canada's competitive edge in the global aerospace industry, the sixth largest in the world.
- Amendments to *Air Transport Regulations* enacted on December 18, 2012 mandated all-inclusive airfare advertising for travel originating in Canada, thus enabling consumers to more easily compare prices between air carriers and make more informed decisions.
- In 2012, the Canadian Transportation Agency ordered WestJet and Air Canada to provide, upon 48 hours' notice by a person with a cat allergy, a minimum five-row seating separation between the person and a cat carried as a pet in the aircraft cabin. Air Canada Express (Jazz) was ordered, upon 48 hours' notice provided by a person with a cat allergy, to ban cats carried as pets in the aircraft cabin of their smaller-size Bombardier Dash-8 aircraft.
- Amendments to the *International Interests in Mobile Equipment (aircraft equipment) Act* were enacted on December 14, 2012. They enabled Canada's ratification of and participation in, the Convention on International Interests in Mobile Equipment and its associated Protocol on Matters Specific to Aircraft Equipment (Cape Town Convention and Protocol). The Convention and Protocol are designed to create an international framework for the creation, registration (through an international registry), protection and enforcement of certain international interests in airframes, aircraft engines and helicopters. A week later, Canada deposited its instruments of ratification for the Convention and Protocol. This ratification took effect in Canada on April 1, 2013.

Environment

- In 2010, domestic aviation emitted 6.3 megatonnes (Mt) of carbon dioxide equivalent (CO_2e), accounting for 3.8 per cent of transportation-related greenhouse gas (GHG) emissions and 0.9 per cent of total Canadian GHG emissions. Between 1990 and 2010, domestic aviation's GHG emissions decreased by 11.4 per cent,

from 7.2 Mt to 6.3 Mt in spite of increased traffic thanks to continued improvements in aircraft efficiency, design and operations as well as the introduction of new aircraft. Without further mitigation action, Environment Canada expects aviation GHG emissions to increase from 6.3 Mt to 10.0 Mt between 2010 and 2020 (a total increase of 57.3 per cent, or an average of 4.6 per cent per year), due mainly to increased activity.

- In 2010, aviation accounted for 5.8 per cent of all transportation-related emissions of sulphur oxides (SO_x), 6.9 per cent of nitrogen oxides (NO_x) emissions and no more than 2.5 per cent of transportation-related emissions of fine particular matter ($PM_{2.5}$), volatile organic compounds (VOC) and carbon monoxide (CO). While they only represent a small portion of transportation air pollutant emissions, aviation-related SO_x, NO_x and VOC emissions grew by 55.9 per cent, 56.6 per cent and 44.6 per cent respectively between 1990 and 2010.
- In June 2012, the Government of Canada and the Canadian aviation industry released Canada's *Action Plan to Reduce Greenhouse Gas Emissions from Aviation*, which sets an ambitious goal to improve fuel efficiency from a 2005 baseline by an average annual rate of at least two per cent a year until 2020 and reduce GHG emissions from both domestic and international aviation.
- The Action Plan builds on the success of the world's first voluntary agreement to address GHG emissions from aviation, which ended in 2012. The final results illustrated that Canadian air carriers' cumulative fuel intensity improved by 30 per cent between 1990 and 2012, surpassing the 24 per cent objective of the agreement. The Action Plan forms the basis for the Government of Canada's response to the International Civil Aviation Organization's (ICAO) Assembly Resolution A37-19, which encourages Member States to submit national action plans setting out measures each state is taking or will take to address international aviation emissions.
- The Action Plan also builds on the work undertaken by the Canadian Airports Council and Transport Canada to develop a quantification methodology for GHG emissions at Canadian airports and the efforts of NAV CANADA to identify and quantify the results of past GHG reduction initiatives in its annual CIFER (Collaborative Initiatives for Emissions Reductions) reports since 1997. NAV CANADA's 2012 CIFER report highlighted a number of technological and air space management initiatives that combine to reduce GHG emissions by an expected 14 Mt between 2011 and 2020, translating into a $5.3-billion cost savings.
- On January 1, 2012, the European Union (EU) extended the application of its Emissions Trading System (ETS) to include GHG emissions from international aviation. In light of progress at ICAO to advance a global solution to reduce GHG emissions from international aviation, the European Commission announced in November its intention to temporarily defer the inclusion of international aviation in the ETS until January 2014.
- In January 2012, Vancouver International Airport opened a $12-million Ground Run-up Enclosure (GRE), the first in Canada. A GRE is a three-sided, five-storey steel enclosure that redirects and reduces noise during an engine run-up conducted as part of regular aircraft maintenance. Engine run-ups are required to test engines following maintenance prior to an aircraft being returned to service.

Safety

- There were 222 aviation accidents in 2012. The 2012 accident rate (determined using preliminary data) was 5.2 accidents per 100,000 hours flown, which is lower than the 2007–2011 five-year average rate of 5.7.
- On July 4, 2012, Transport Canada announced new regulations requiring Terrain Awareness and Warning Systems (TAWS) in private turbine-powered and commercial airplanes configured with six or more passenger seats. TAWS provide audio and visual alerts to flight crews when the path of the aircraft is expected to collide with terrain, water or obstacles, thus allowing the flight crew sufficient time to take evasive action.
- On November 13, 2012, Canada and China signed an action plan to strengthen cooperation on aviation safety. The action plan will allow Canada and China to learn from each other's civil aviation programs and work cooperatively on safety issues. Through these activities, Canadian aerospace companies will gain easier access to Chinese markets, contributing to the health of the Canadian economy while maintaining the highest safety standards. This signing followed Prime Minister Stephen Harper and Premier Wen Jiabao's commitment to strengthen collaboration in civil aviation in February 2012.

- On March 18, 2012, Aveos ceased operations and began liquidating assets. Formerly Air Canada Technical Services, Aveos was spun off in 2007 and employed 1,800 in Montreal, 350 in Winnipeg and 250 in Vancouver at the time it closed its doors. Aveos performed heavy maintenance and overhaul on a contractual basis for Air Canada and several other carriers. Aveos' sudden closure forced Air Canada to seek alternate service providers.
- In March 2012, NAV CANADA continued the implementation of advanced technologies to enhance Air Navigation Service by expanding Automatic Dependant Surveillance Broadcast (ADS-B) to a 1.3-million km^2 area over the North Atlantic, the busiest oceanic corridor in the world. ADS-B is a next-generation air traffic surveillance system that automatically transmits flight information between aircraft and air traffic control every second, allowing for a reduction in aircraft separation minima for equipped aircraft and ultimately an increasing number of aircraft to follow the most efficient flight trajectory. This translates into significant fuel savings for airlines and lower air pollutant emissions.
- Transport Canada and Bombardier Aerospace launched a pilot project designed to augment the department's resources in aircraft certification. This project will allow Transport Canada to hire additional staff in areas such as flight testing and engineering. It will support the upcoming certification program for the C-Series. The *Aerospace Review* recommended that the department pursue such initiatives to better support growing industry demand.
- Transport Canada modernized its process for engaging stakeholders on proposed amendments to the Canadian Aviation Regulations and to discuss specific aviation safety issues in a way that is more responsive to safety priorities.

Security

- The *Canadian Aviation Security Regulations, 2012* were enacted in January 2012. These new regulations introduced airport security programs designed to enhance security management at airports and were updated and reorganized into a more use-friendly structure for the aviation industry as a whole. The *Aerodrome Security Measures* were also updated and modernized in March 2012.
- Under the terms of the 2011 Action Plan on Perimeter Strategy and Economic Competitiveness, Transport Canada, the Canadian Air Transport Security Authority (CATSA) and the Canada Border Services Agency collaborated to permit NEXUS members to enjoy expedited entry into Canada and the United States and access to Trusted Traveller CATSA Security Lines when departing from major airports. In February 2012, the program was expanded to include flights to the U.S.
- Similarly, on May 31, 2012, the governments of Canada and the United States announced an agreement whereby each other's air cargo security programs would achieve equivalent levels of security. Under this agreement, cargo shipped on passenger aircraft will now be screened only once for transportation security reasons at the point of origin and will not need to be rescreened prior to upload on an aircraft in the other country. This will reduce delays and economic costs caused by both countries screening the same cargo twice.
- Beginning on December 31, 2012, changes to Canada's *Security Measures Respecting Air Cargo* require that 100 per cent of air cargo be secure if transported on passenger flights. This means that cargo must originate from a business registered with the Air Cargo Security Program or be actively screened using one of the approved screening methods.
- In September 2012, Canada hosted the International Civil Aviation Organization's (ICAO) High Level Conference on Aviation Security. Representatives from 132 countries and 32 organizations gathered to discuss aviation security challenges. The conference focussed on key themes such as cooperation and efficiency and also examined risk and performance-based approaches designed to improve security and facilitate passenger travel.

Economic Marketplace and Infrastructure

- In 2011, marine freight traffic in Canada reached 404 Mt, an increase of 3 per cent over the 2010 tonnage. As much as 62 Mt were recorded in domestic flows, 97 Mt in transborder traffic and 245 Mt in other international traffic. Marine transportation services handled $205.3 billion in international trade in 2011 (up 21 per cent from 2010) with $106 billion in imports and $99.3 billion in exports.
- In 2012, the St. Lawrence Seaway handled 38.9 Mt of cargo, representing a 4 per cent increase in volume compared to 2011, with most types of traffic posting gains. In 2011–12, the Seaway generated $68.2 million in revenues against operating expenses of $73.6 million. Expenditures for asset renewal totalled $53.7 million.
- The 18 Canadian Port Authorities (CPAs) handled 61 per cent of Canada's total port traffic (285 Mt) in 2011. Operating revenues for the CPAs increased to $489 million from $457 million. Total operating expenses increased 7.8 per cent to $252 million for an average ratio of operating expenditures to operating revenues of 194 per cent. Montreal and Vancouver accounted for 55.3 per cent of CPA revenues. The aggregate net income for the CPAs was 145 million in 2011, a 43.5 increase per cent decline from 2010. The CPAs spent 191.6 million on capital projects in 2011, a 23 million decrease despite a doubling of capital expenditures at Halifax and Toronto and a 13-fold increase at Thunder Bay. The CPAs overall return on assets was 5.5 per cent in 2011, compared to 4 per cent in 2010.
- Ridley Terminals Inc. (RTI) in Prince Rupert, a Crown corporation, handled 11.5 Mt of coal in 2012. RTI is undertaking an expansion plan to increase its capacity to 25 Mt per year, which is expected to be completed in 2014. In December 2012, the federal government announced its intention to sell Ridley Terminals Inc. through the Canada Development Investment Corporation.
- Canada's four major container ports all experienced increases in container traffic in 2012, measured in 20-foot equivalent units (TEUs). Prince Rupert reported the strongest growth in TEU, 37.6 per cent, to 565 thousand TEUs, followed by Vancouver (plus 8.2 per cent to 2.7 million TEUs), Halifax (plus 1.4 per cent to 417 thousand TEUs) and Montreal (plus 0.9 per cent to 1.4 million TEUs).
- Vancouver, Canada's busiest cruise ship port, processed 666,240 cruise passengers in 2012, up 0.4 per cent from 2011, despite the fact that the number of cruise ships calling at the port declined to 191 in 2012 from 199 in 2011.
- The Port of Quebec City enjoyed a remarkable year in 2012, handling a reported record 32.5 Mt of freight and greeting 117,000 cruise ship passengers, up 12.5 per cent and 41 per cent from 2011 respectively.
- Foreign participation in Canada's coasting trade—defined as the transportation of goods or passengers between points in Canada and any related activity of a commercial nature—has stayed relatively stable, reaching 1.8 percent in 2011. Increased demand for foreign registered supply and support vessels in Canada's offshore environment accounts for the use of foreign vessels in Canada's maritime coasting trade.
- On June 29, 2012, the *Coasting Trade Act* was amended to allow seismic activities relating to the exploration of minerals and non-wildlife natural resources on the continental shelf of Canada to take place aboard foreign and non-duty paid vessels without the requirement of obtaining a coasting trade licence.
- The Government of Quebec released a study on the feasibility of marine freight transportation to the North Shore. The study revealed that volumes may support a regular service but that a number of challenges exist that would prevent such a project from being profitable in its first years of operation. The study also highlights social and environmental benefits of such a service.
- Groupe Desgagnés launched its 18th vessel, the *Claude A. Desgagnés*. The 139-metre ship has a 20,000-cubic-metre capacity. It will be used mainly in Northern Quebec and Nunavut.
- Fisheries and Oceans Canada (DFO) operates and maintains a national network of harbours capable of supporting the principal and evolving needs of the commercial fishing industry and the broader interests of coastal communities. It keeps harbours critical to the fishing industry open and in good repair; the value of

fiush landings at these harbours is about $1.3 million, representing about 80 percent of all fisah landings in Canada. DFO also manages the divesture of recreational harbours and fishing harbours with low or no activity. As of April, 2013, it managed 692 harbours and had divested 392 harbours.

Environment

- In 2010, the domestic marine sector emitted 6.7 megatonnes (Mt) of CO_2e, accounting for 4 per cent of transportation-related GHG emissions and less than 1 per cent of total Canadian GHG emissions. Between 1990 and 2010, domestic marine GHG emissions increased by 33.4 per cent, from 5.1 Mt to 6.7 Mt, representing an average annual increase of 1.4 per cent. The increased use of larger, more efficient vessels during this period was offset by an increase in total tonne-kilometres (t-km) travelled. Without further mitigation action, Environment Canada expects marine GHG emissions to increase from 6.7 Mt to 7.5 Mt between 2010 and 2020 (a total increase of 10.9 per cent, or an average of 1.0 per cent per year), due mainly to increased activity.
- In 2010, the majority of transportation-related SO_x emissions (89.2 per cent) came from marine transportation, but this represented only a small portion (6.2 per cent) of Canada's total SO_x emissions. The marine sector also accounted for 16.2 per cent and 10.7 per cent respectively of transportation-related $PM_{2.5}$ and NO_x emissions, but contributed to less than 1 per cent of transportation-related VOC and CO emissions in Canada. Between 1990 and 2010, SO_x, $PM_{2.5}$ and NO_x emissions fell respectively by 26.3 per cent, 12.1 per cent and 11.1 per cent. VOC and CO emissions also decreased.
- On July 21, 2012, Transport Canada published the proposed *Regulations Amending the Vessel Pollution and Dangerous Chemicals Regulations in Canada Gazette*, Part I, for a 75-day comment period. The proposed regulations would implement the North American Emission Control Area and Vessel Energy Efficiency standards. The publication of final regulations in *Canada Gazette*, Part II is expected in 2013.
- Canadian implementation of the North American Emission Control Area (ECA) has been delayed, but it entered into force internationally on August 1, 2012. Foreign-registered vessels are required to comply with ECA regulations from that date. Transport Canada has taken interim measures to promote voluntary compliance with other elements of the delayed regulatory package.
- In October 2012, in advance of a formal regulatory process, Transport Canada issued a discussion paper containing a proposed regulatory approach to implementing new international rules for the handling of ballast water. The approach seeks to protect Canada's waters from aquatic invasive species while ensuring a predictable regulatory regime for marine shipping taking into account a complex ballast water regulatory framework in waters shared with the United States.

Safety

- In 2012, there were a preliminary total of 231 accidents involving Canadian registered vessels (194 shipping accidents and 37 accidents aboard ship). The past two decades have witnessed an average yearly decline of nearly 6 per cent in recorded marine accidents and the 2012 figure was down 31 per cent from the 2007–2011 five-year average. Based on estimated movement data, the 2012 Canadian vessel accident rate of 16.1 for non-pleasure craft - excluding fishing - of over 15 gross tonnes has decreased from both the 2011 rate of 22.0 and the previous five-year average of 22.4. In addition to Canadian vessel accidents, there were 54 foreign-flag vessel accidents in 2012. Marine fatalities totalled 12 in 2012, the lowest ever recorded and well below the previous five-year average of 19. Foreign-flag vessels accounted for two of the 2012 fatalities.
- On 18 October 2012, Transport Canada introduced amendments to the *Navigable Waters Protection Act* under Bill C-45 in order to streamline the regulatory process. The Bill, which will change the name of the Act to the *Navigation Protection Act*, received Royal Assent on December 14, 2012. The amended legislation will come into force no later than April 1, 2014.
- Budget 2012 provided funds to implement new regulations designed to enhance the existing tanker inspection regime, implement appropriate legislative and regulatory frameworks related to oil spills, emergency preparedness and response and to conduct a review of handling processes for oil products by an independent international panel of tanker safety experts.

- In November 2012, Transport Canada announced that, in most cases, vessels of 24 metres in length and above will obtain their certificates from authorized third parties instead of Transport Canada, starting in a phased approach in January 2014. This certification model is harmonized with international practice and will allow Transport Canada to focus on risk-based inspections.
- In 2012, under the Canada-United States Regulatory Cooperation Council, Transport Canada and the U.S. Coast Guard established a Canada-U.S. safety and security framework and arrangement for the St. Lawrence Seaway and Great Lakes system in order to align regulatory requirements. This allowed for a pilot project for joint safety inspections (Transport Canada / U.S. Coast Guard) of foreign-flagged vessels before they entered the St. Lawrence Seaway and Great Lakes System as is now the case for security inspections through the Joint Initial Verification Program. The Pilot Project was completed in December 2012 and a total of 10 foreign-flagged vessels were jointly inspected by the U.S. Coast Guard and Transport Canada. Data collected during those inspections is now undergoing a cost-benefit analysis on the time savings for the marine industry versus additional costs for inspections by the U.S. Coast Guard.
- On August 24, 2012, the Canadian Coast Guard launched its newest ship, the *CCGS Vladykov*, in St John's, where it will be based. The $18-million ship, named after Ukrainian-born Canadian zoologist Dr. Vadim Dimitrievitch Vladykov, will be used primarily for fisheries research, but will also have a secondary capacity for both search and rescue and environmental response.
- As a result of the International Conference on the Safety of Fishing Vessels, organized by the International Maritime Organization (IMO) in Cape Town in October 2012, 58 States, including Canada, approved in principle measures that will improve the safety and oversight regime for international fishing vessels. The accord, known as the Cape Town Agreement of 2012, is the result of five years of intensive discussion through the IMO. The Agreement will come into force a year after 22 States with a combined fishing fleet of over 3,600 vessels ratify it.
- In 2012, more than 110,000 new applications and transfers of pleasure craft licenses were processed by the Pleasure Craft Licensing Centre. Canada has approximately six million recreational boaters in any given year and recreational boating contributes an estimated $26 billion annually to the Canadian economy, according to the National Marine Manufacturers Association Canada.
- Boating is by far the most frequent type of activity leading to water-related injury and fatality in Canada, accounting for more than 3,000 deaths in Canada from 1991 to 2008, the latest year for which data are available. In 86 per cent of the cases, the boating activity was recreational and 95 per cent of the deaths resulted from immersion, including drowning, with or without cold water exposure. For recreational boating, deaths associated with powerboats accounted for 58 per cent of fatalities and unpowered boats for 37 per cent. The most frequent recreational boating activity where there was a fatality was fishing, accounting for 37 per cent of immersion deaths. Males 15 and older accounted for about 90 per cent of victims, continuing to make them the key target group for prevention. Failure to wear a flotation device was a factor for up to 88 per cent of victims and for an even higher proportion of non-swimmers and those who had consumed alcohol. Finally, a key environmental factor for recreational boating immersion deaths in Canada is cold water, which has been associated with a least 35 per cent of fatalities.
- In June 2012, the Transportation Safety Board (TSB) published the results of a three-year investigation into fishing safety. The report identified a series of key safety issues, calling for improved training, safety information, life saving appliances and accident data, among others. The report is accompanied by a booklet and a video.
- In 2012, funding of $322,000 was announced for six projects under the *Boating Safety Contribution Program* (BSCP) to raise public awareness of boating safety, advance knowledge of boating safety issues, practices and behaviours in Canada and also to support regulatory compliance.
- In 2012, Transport Canada engaged in an action plan under the U.S.-Canada Regulatory Cooperation Council for the alignment of safety standards for the construction of small craft and for lifejackets.

Security

- Transport Canada was an active partner with other government departments and stakeholders as well as counterparts in the United States to introduce initiatives in the *Beyond the Border Action Plan for Perimeter Security and Economic Competitiveness*. To expedite the resumption of maritime trade following a disruption, joint planning and communications guides were developed for the Pacific region with the intention that they be used as the basis for similar guides for the Atlantic and Great Lakes regions.
- In July 2012, Transport Canada completed a project that electronically connects both of its coastal Marine Security Operations Centres to the Government of Canada's most secure communication network, allowing analysts on both coasts and at headquarters to work together and share information securely with the broader intelligence community.
- The Marine Event Response Protocol/Maritime Operational Threat Response Strategic Protocol was finalized in June 2012. The Protocol lays the groundwork for the exchange of information between Canada and the U.S. during significant maritime security threats or events.
- As part of a Transport Canada initiative, since October 2, 2012, phone calls relating to ongoing marine security incidents are now routed to a central Situation Centre for appropriate triage. This helps improve efficiency and contain costs while ensuring round-the-clock service.

Economic Marketplace and Infrastructure

- In 2011, Canadian railways carried a total of 326.3 Mt of freight, including 247.5 Mt carried by class I railways, namely Canadian National Railway (CN) and Canadian Pacific Railway (CP). This represents an increase of nearly 15.4 Mt from 2010 or 5 per cent.
- In 2011, Canadian rail freight carriers had operating revenues of $10.8 billion from their Canadian operations. This represents an increase of 7.8 per cent from 2010 revenues of $10 billion. System-wide, CN reported earnings of $2.7 billion (up 9.1 per cent from 2011) on revenues of $9.9 billion while CP reported earnings of $484 million (down 15.1 per cent from 2011) on revenues of $5.6 billion.
- Fifty-three shortline and regional railways operated in Canada in 2011. They accounted for 22 per cent of the total kilometres of track and $717 million in revenues. Collectively, they carried a total of 78.8 Mt of freight. This represents an increase of nearly 7.5 Mt from 71.3 Mt in 2010, or nearly 10.6 per cent. In 2012, shortline railway revenues accounted for 6.3 per cent of total revenues in the railway sector. In 2012, shortline railways employed approximately 2,826 people.
- In 2012, CN spent more than $1.4 billion on net capital investments, including tracks, roadways and rolling stock. As part of these investments, CN acquired 160 locomotives, 2,200 new freight cars and 1,300 new containers to increase capacity. It announced the construction of a crude oil rail-car loading facility near Cromer, Manitoba capable of loading 30,000 barrels of crude oil a day. The facility will be operated by Tundra Energy. CN will also build five extended sidings on its B.C. North Corridor between Edmonton and Prince Rupert to accommodate 3.6-kilometre trains. CN is also expanding its Prince George locomotive maintenance facility, which serves that corridor and has invested $155 million to increase rail capacity serving the port of Prince Rupert since 2004.
- In 2012, CP spent $1 billion on net capital investments, including tracks, roadways and rolling stock. It announced that through improved operations and reduced dwell times it can now transport containers between Vancouver and Toronto in four days instead of five. It also opened a new transloading facility in Lloydminster, Saskatchewan to transport crude oil and support NuStar Energy's crude oil storage facility. The transloading facility will be operated by Torq Transloading.
- In 2012, VIA Rail Canada, a Crown corporation that operates a network of passenger rail services throughout the country experienced a 1.1 per cent decrease in passenger-kilometres compared to 2011 and a 1.8 per cent decrease in revenues. VIA's on-time performance also decreased from 81 per cent in 2011 to 79 per cent in 2012.
- As part of Budget 2012, VIA Rail received $105 million to support its operations and make investments in track signalling systems, track components, station repairs and information technology projects to enhance the safety and efficiency of its operations. VIA is nearing completion on its $923-million major capital program, which includes $516 million from Budget 2007 and $407 million provided as part of the Government of Canada's Economic Action Plan.
- On March 18, 2011, the federal government announced its response to the Rail Freight Service Review (RFSR), indicating that it agreed with the RFSR Panel's commercial approach whereby it intends to implement a number of measures to improve the performance of the entire rail supply chain. The Government appointed an independent facilitator to develop a template service agreement and streamlined commercial dispute resolution processes between railways and shippers; the facilitator's report was released in June 2012. The Government also introduced the *Fair Rail Freight Service Act* to give companies that ship goods by rail the right to a service agreement with the railways. This bill also creates an arbitration process that the shipper can trigger to establish an agreement when commercial negotiations fail.
- VIA adjusted the frequency of services on several of its routes during the year. In the Quebec City-Windsor Corridor VIA added 12 new departures per week between Ottawa and Toronto, 10 between Montreal and Quebec City and four between Montreal and Toronto. Meanwhile, long-haul services to Eastern and Western

Canada were reduced, as were low-performing services in the Quebec City-Windsor Corridor and train services in south-western Ontario that duplicated commuter rail operations in the Greater Toronto Area. To help mitigate the impact of its service reductions on rail travellers in the London to Sarnia market VIA partnered with Robert Q Airbus to offer an intermodal strategy providing travellers in the region with more convenient connections.

- Following the Government of Ontario's announcement in March 2012 that it would be divesting itself of the Ontario Northland Transportation Commission due to increased costs and stagnant ridership, the Northlander passenger train service between Toronto and Cochrane was replaced with a bus service in September 2012.
- VIA Rail and the *Agence métropolitaine de transport* (Metropolitan Transportation Agency), which manages commuter trains in the Montreal area, have partnered to seamlessly sell tickets to passengers who use both railways and connect at Montreal's Central Station. VIA Rail also partnered with Air Transat to make it easier for its passengers to buy train tickets and connect between both carriers at Montreal-Trudeau Airport.
- On March 27, 2012, CN announced that it would be selling two rail line segments in the Greater Toronto Area to Metrolinx for $310.5 million. CN will retain some operating rights to ensure continued freight operations.
- Metrolinx's GO Transit division introduced an innovative approach to promote train service reliability through a service guarantee that provides customers a credit if their train arrival time is delayed by more than 15 minutes, except in cases where the delay is caused by a factor outside of GO Transit's control. In 2011, 94 per cent of GO Transit trains arrived within 15 minutes of their scheduled time, up from 87 per cent in 2008.

Environment

- In 2010, the rail sector emitted 6.7 Mt of CO_2e, accounting for 4.1 per cent of transportation-related GHG emissions and less than 1 per cent of total Canadian GHG emissions. Freight operations accounted for the vast majority of rail emissions, accounting for 94.8 per cent of GHG emissions and more than 90 per cent of emissions of air pollutants. Between 1990 and 2010, rail GHG emissions decreased by 4.5 per cent, from 7.0 Mt to 6.7 Mt, representing an average annual decline of 0.2 per cent. This decrease can be attributed to efficiency improvements, which led to decreased energy use and emissions at a time when freight activity grew significantly but total passenger-kilometres decreased slightly. Without further mitigation action, Environment Canada expects rail GHG emissions to increase to 7.6 Mt between 2010 and 2020, a total increase of 13.9 per cent or 1.2 per cent per year. This increase is mainly attributed to an expected increase in activity with the share of emissions between passenger and freight service remaining constant.
- In 2010, the rail sector accounted for 8.5 per cent and 5.8 per cent of transportation-related NO_x and $PM_{2.5}$ emissions respectively, but contributed to less than 3 per cent of transportation-related emissions of other air pollutants such as CO, VOC and SO_x. Between 1990 and 2010, rail-related emissions of SO_x fell by 57.1 per cent, CO by 25.6 per cent, NO_x by 15.0 per cent while emissions of $PM_{2.5}$ and VOC increased by 42.8 per cent and 25.8 per cent, respectively.
- In 2012, Transport Canada continued development of the proposed locomotive criteria air contaminant emissions regulations. The proposed Regulations, which will be implemented under the *Railway Safety Act* (RSA), will apply to federal railway companies and align with existing United States regulations.
- In addition to criteria air contaminant emissions regulations, both Canada and the U.S. have committed to address GHG emissions from locomotives as part of the Joint Action Plan for the Canada-U.S. Regulatory Cooperation Council. Extensive engagement with rail industry stakeholders has focused on options for reducing GHG emissions from locomotives, with the development of possible voluntary GHG emission reduction targets, operating measures, technology improvements and fleet change actions to follow. In support of the Work Plan for this initiative, a technology and infrastructure scan for reducing GHG emissions in the rail sector was completed and served as the basis for discussions with stakeholders at a joint Canada-U.S. workshop held in October 2012.
- The 2010 Locomotive Emissions Monitoring (LEM) report, published in 2012, shows that Class I, Class II and Intercity railways all met or exceeded the GHG emissions target set in the 2006–2010 Memorandum of Understanding (MOU) between Transport Canada and the rail industry. Under the LEM reports, the Canadian rail industry reports on other voluntary emission reduction initiatives. For example, some railways have installed anti-idling devices on locomotives, which have helped to further reduce fuel usage and emissions.

- In 2012, Transport Canada and the Railway Association of Canada developed a renewed voluntary agreement to reduce emissions from the rail sector. The new agreement will cover the 2011–2015 period and is expected to be signed in 2013.
- In 2012, CN began testing two diesel-electric locomotives powered by a natural gas-diesel blend in northern Alberta. It expects these locomotives to emit 30 per cent less CO_2 and 70 per cent less NO_x. Testing will continue through to 2014.

Safety

- There were 1,012 railway accidents in 2012, nine fewer than in 2011 and the fewest in over a decade. These accidents caused 82 fatalities, 11 more than in 2011. There were 187 grade-crossing collisions, 4 per cent fewest than the average of the five previous years. There were 74 trespassing accidents, six percent below the average of the five previous years.
- Bill S-4, an *Act to amend the Railway Safety Act* (RSA) received Royal Assent on May 17, 2012. The majority of the new provisions under the RSA, aimed at improving railway safety in Canada, will come into force on May 1, 2013.
- The amendments will encourage rail companies to create and maintain a culture of safety by enabling the Government of Canada to
  - improve safety requirements for railway companies,
  - introduce administrative monetary penalties and increase existing judicial penalties,
  - improve the oversight capacity of the department by requiring all companies that operate or maintain a railway to obtain a Railway Operating Certificate,
  - expand regulation-making authorities to include such areas as environmental protection, and
  - clarify the authority and responsibilities of the Minister of Transport, Infrastructure and Communities in respect of railway matters.
- A significant change brought about by the amendments is that local railway companies will become subject to the RSA. To inform local railway companies and help them transition to the new regime, a comprehensive information package with instructions, information documents, frequently asked questions and a dedicated website were developed and communicated to all stakeholders.
- Transport Canada conducted a series of targeted national consultation meetings regarding the development of Railway-Roadway Grade Crossings Regulations held with grade crossing owners (railway companies, road authorities and beneficiaries) during the months of May and June 2012. These consultations will help develop regulations that enhance rail safety.
- Following a VIA Rail train derailment in Burlington, Ontario on February 26, 2012, the Minister of Transport, Infrastructure and Communities referred the issue of locomotive voice recorders (LVRs) to the Advisory Council on Railway Safety (ACRS) for consideration. ACRS established an LVR Working Group with representatives from the railways, unions and Transport Canada to study the issue. The Working Group conducted a comprehensive study of the issue, considering the pros and cons of various options and approaches. Transport Canada is currently reviewing the report and assessing the results of the study.
- Since Transport Canada launched the *Railway Safety Act* review in 2006, Canada's three Class I railways have made significant progress in upgrading their safety systems and safety performance. CN, CP and VIA have all increased their levels of consultation and communication with the regulator, enhanced their focus on safety management systems, launched a variety of new safety initiatives related to operations and infrastructure and are working towards the development of a strong safety culture at all levels of their organizations.
- CN started construction on a new 9,300-square-metre training facility in Winnipeg that can receive 250 to 300 employees a week to support workforce renewal. The training centres are equipped with locomotive simulators, dispatcher stations, dedicated rolling stock and field training equipment.
- In March 2012, the Canadian Rail Research Laboratory (CaRRL) was established at the University of Alberta in Edmonton (U of A). This education and research facility will perform rail safety and security research and examine issues unique to the Canadian rail sector for the next five years. CaRRL was created with joint funding from TC, CP, CN Rail, the American Association of Railroads (AAR), Alberta Innovates Technology

Futures and the U of A. CaRRL meets an objective set out by the 2007 Railway Safety Act review (RSAR) to establish a laboratory in Canada affiliated with the AAR and TTCI to investigate emerging technologies related to rail safety. Phase I (2012–2017) focuses on research to support key Canadian and North American priorities in ground hazards and winter-service reliability and capacity. CaRRL aims to be Canada's premier education and research facility in railway engineering.

Security

- Transport Canada was an active partner with other government departments and stakeholders as well as counterparts in the United States to realize initiatives in the Beyond the Border Action Plan for Perimeter Security and Economic Competitiveness. In October 2012, Transport Canada contributed to the development and release of an Integrated Cargo Security Strategy. The strategy sets out the vision, objectives and actions necessary to address risks at the earliest opportunity by moving risk mitigation related activities away from the Canada-United States border and to facilitate the legitimate flow of international shipments across it. As a partner and with stakeholders, pilot projects were started to validate and shape the implementation of the strategy. This included perimeter vetting and examination of inbound marine cargo at Prince Rupert destined for Chicago by rail.
- On May 10, 2012, three smoke bombs were released in three Montreal subway stations on the green, orange and blue lines. This caused a nearly three-hour shutdown of the subway system during rush hour. Four students were arrested and charged with mischief and conspiracy. This incident was meant to show support for striking college and university students.
- In late December 2012, a number of freight and passenger services, including CN and VIA, were impacted by First Nations railway blockades. For example, CN's main line between Montreal and Toronto was sporadically blocked, delaying freight and passenger service. An industrial spur line in Sarnia was also blocked for nearly two weeks.

Economic Marketplace and Infrastructure

- In 2011, Canadian for-hire carriers moved 224 billion tonne-kilometres of freight, up 1 per cent from 2010. Roughly 136 billion tonne-kilometres (61 percent) were carried in the domestic sector and 88 billion tonne-kilometres (39 percent) in the international sector.
- The average price of road-diesel fuel for commercial users in 2012 increased by 0.7 per cent over 2011.
- There were 155 trucking bankruptcies in 2012, representing an 18 per cent reduction from 2011.
- In 2012, the value of Canada-U.S. trade (inbound and outbound) increased by 4 per cent to a total of $551 billion. Close to 57 per cent of this trade was shipped by trucks ($325 billion) and nearly 78 per cent of Canada-U.S. total road-based trade passed through Ontario and Quebec border crossings with the United States.
- In 2012, two-way car and truck traffic crossing the Canada-U.S. border rose from 2011, reaching 63.7 and 10.8 million vehicles respectively, up 4 per cent since 2011. Car traffic increased by 4 per cent over 2011 figures while truck traffic increased 2 per cent.
- In 2012, the level of truck activity at the Windsor-Ambassador Bridge increased 5 per cent over 2011. Eleven of the 20 largest border crossings recorded higher truck traffic from the previous year.
- Wal-Mart Canada and Innovative Trailer Design unveiled the *Supercube* trailer in November 2012. The 18.4-metre trailer is 14 per cent longer than a conventional trailer. With a lower floor and a 'dromedary' box mounted to the back of the cab, it has a capacity of 145 cubic metres, 28 per cent more than a standard trailer, yet is only 3 per cent heavier. It has the potential to lower operating costs and fuel burn. Before going into operation, these trailers will be subject to pilot testing conducted by the Ministry of Transport of Ontario to ensure they meet provincial safety standards.
- In the intercity bus sector, Canada-U.S. bus travel accounted for 1.9 million passengers in 2012, up 7 percent from 2011.
- In 2012, bus industry revenues (including government contributions) were estimated at $15.5 billion, an increase of 7 per cent over 2011. The urban transit sector accounted for 78 percent of total bus industry revenues, including government contributions.
- Manitoba's agreement with Greyhound to continue all services in the province in exchange for a government subsidy came to an end on June 30, 2012. This prompted Greyhound to drop 12 bus routes and scale back others in Manitoba the following day.
- Acadian Coach Lines permanently discontinued bus services in New Brunswick, Nova Scotia and Prince Edward Island on December 1, 2012. That day, it was replaced by Tri-Maritime Bus Network, part of Trius Tours, which operates the same routes vacated by Acadian.
- In June 2012, the Prime Minister announced the conclusion of an agreement between Canada and the State of Michigan towards building a new publicly owned bridge between Windsor and Detroit. The Detroit River International Crossing is expected to cost $3.5 to $4 billion and and its construction, through a public-private partnership, will be financed from future toll revenues.
- As part of the New Bridge for the St. Lawrence project to replace the Champlain Bridge in the Montreal area, Transport Canada and Jacques Cartier and Champlain Bridges Incorporated received approval to build a temporary bridge-causeway to replace the Nuns' Island Bridge, estimated to cost $124.9 million. The total construction costs for the New Bridge for the St. Lawrence Corridor project, including the New Bridge for the St. Lawrence, the Nuns' Island Bridge, the Highway 15 rebuilding and other works, are estimated between $3 and $5 billion. Tolling will be a source of funding for this project.
- On Montreal's South Shore, the 42-km section of highway A30 (Western Section), including a new bridge over the St. Lawrence Seaway, was opened to traffic in December 2012. This last stretch of road completes

this major highway project connecting highways 20, 30 and 40 and a southern bypass route for the Montreal region. The Government of Canada invested $704.5 million for this section under a public-private partnership arrangement managed by the Government of Quebec. The total cost for this section was approximately $1.5 billion.

- Blue Water Bridge Canada completed the construction of the Corporate Centre, a multi-year project of $70.6 million covering the years 2008–2012. This building fulfills the most up-to-date requirements of the Canada Border Services Agency (CBSA) and the Canada Food Inspection Agency (CFIA).
- On November 30, 2012 the one-kilometre Deh Cho Bridge officially opened, marking the final leg of a highway connecting Alberta to the North. The $202-million bridge over the Mackenzie River permits year-round access to communities in the North Slave region. The bridge is financed by savings realized from the elimination of the ferry and ice bridge operation and by a toll on commercial vehicles crossing the bridge.
- In the fall of 2012 work began on a 22-km extension of Ontario's Highway 407 from Pickering to Oshawa, Phase I of the Highway 407 East project. The cost of this phase is expected to be $1 billion, financed by the government of Ontario.
- The Port Mann Bridge on Highway 1 in the Vancouver area was gradually opened to traffic between September and December 2012. Starting with the opening of three eastbound lanes in September. By December 1 a total of eight lanes were open to traffic—four in each direction. Work on the western sections of Highway 1 in Burnaby will not be complete until the end of 2013. About the same time the final two lanes of the new bridge will be connected, providing 10 lanes—five in each direction—making it the widest suspended bridge in the world. The bridge is electronically tolled. Toll rates could rise with inflation, but increases will be capped at 2.5 per cent annually.
- In 2011–12, governments collectively invested $3.4 billion in the National Highway System (NHS), a decrease of about 15 per cent from the previous year. The NHS network remained unchanged at just over 38,000 km. The value of trade across the Canada/U.S. border at crossings on the NHS rebounded to $290 billion in 2011, up 7 per cent from 2010.
- In 2011, the NHS pavement in "good" condition accounted for 25,266 km, an increase of around 4.3 per cent over 2010. This could be attributed to ongoing investments by all levels of governments. The number of bridges on the NHS that are fewer than 10 years in age increased to 1,352 in 2011. This is an increase of over 10.5 per cent from 2010. Once again, this could be attributed to the addition of new bridges and the ongoing reconstruction and major rehabilitation of existing bridges on the NHS by all levels of governments.

Environment

- In 2010, the road transportation sector emitted 135.9 megatonnes (Mt) of CO_2e, accounting for 82 per cent of domestic transportation-related GHG emissions and 19.6 per cent of total Canadian GHG emissions. Between
1990 and 2010, road transportation GHG emissions increased by 39.9 per cent, from 97.2 Mt to 135.9 Mt, representing an average annual increase of 1.7 per cent. This increase can be attributed to an increase in passenger-vehicle activity, itself driven by population growth, a shift toward the use of less efficient light trucks
and sport utility vehicles, as well as the growing share of freight that is being moved by trucks. Even without further mitigation action, Environment Canada expects on-road GHG emissions to decrease by 6.5 per cent between 2010 and 2020 to 127.1 Mt, or 0.7 per cent per year. This is mostly due to the introduction of the *Passenger Automobile and Light Truck Greenhouse Gas Emission Regulations* for vehicles being produced in model years 2012 to 2016.
- In 2010, road transportation accounted for 37.9 per cent of transportation-related CO emissions, 17.3 per cent of NO_x emissions and 42 per cent of VOC emissions. Passenger-vehicle activity accounted for the majority of road transportation GHG emissions (66.5 per cent) and, being mostly reliant on motor gasoline, of SO_x, VOC and CO emissions (68.6 per cent, 92.9 per cent and 96.7 per cent of road emissions). Freight activity, which is mostly dependent on diesel fuel, contributed to the majority of $PM_{2.5}$ and NO_x emissions (75.4 per cent and 54.2 per cent of road emissions). Between 1990 and 2010, CO emissions grew by 38.1 per cent, VOC by 30.6 per cent, $PM_{2.5}$ by 24.8 per cent and NO_x emissions by 44.1 per cent. Although they represent

only a small share of total transportation emissions, road-related emissions of SO_x increased by 6.1 per cent over the same period.

- Three proposed regulations were published in Part I of the *Canada Gazette*, namely: 1) the *Heavy-duty Vehicle and Engine Greenhouse Gas Emission Regulations*, which establish mandatory standards for new on-road heavy-duty vehicles and engines that are aligned with U.S. standards for vehicles of model years 2014 and beyond sold in Canada; 2) the *Regulations Amending the Motor Vehicle Safety Regulations*, which allow for the installation of extended-length boat tail designs on new commercial trailers in Canada, which can improve fuel efficiency by up to 6 per cent under certain conditions and; 3) the *Regulations Amending the Passenger Automobile and Light Truck Greenhouse Gas Emission Regulations*, which align with U.S. standards and reduce GHG emissions by up to 162 Mt over the lifetime of vehicles in the model years 2017 to 2025 sold in Canada.
- In 2012, Transport Canada's Canadian Vehicle Use Study compiled extensive travel-activity data on more than 4,000 light vehicles (gross vehicle weight under 4.5 tonnes) randomly selected from registration lists supplied by the provinces of Ontario, Quebec, Saskatchewan and Manitoba. Cars and light trucks completed approximately five trips per day on average and travelled an average of about 50 km a day, which represents around 18,250 km annually. The average occupancy was 1.7 passengers per vehicle. Idling represented nearly 22 per cent of total travel time and accounted for almost 8 per cent of total fuel consumption. The average fuel consumption for passenger cars was around 9 l/100 km compared with around 16 l/100 km for light trucks and vans. "Work and Business" was the most frequently cited trip purpose accounting for approximately 36 per cent of distance driven.
- In 2012, the environmental assessment of the New Bridge for the St. Lawrence to replace the Champlain Bridge was initiated. Public consultations were held in December 2012, with additional consultations taking place in April 2013.
- Environment Canada published its five-year review of the *Code of Practice for the Environmental Management of Road Salts* in 2012. Nine provincial governments, the Yukon and 201 municipalities reported on their salt usage and the implementation of best practices. The annual quantity of road salts used fluctuated significantly from 2004 to 2009, reaching a high of 4.2Mt in 2008. Since the Code came into effect, virtually all salt piles are now being stored under cover and on impermeable pads, thus reducing chloride-contaminated runoffs.

Safety

- Preliminary estimates indicate that there were 118,759 road casualty collisions, causing 2,025 fatalities and 162,268 injuries in 2011. Road casualty collisions decreased an estimated 5.1 per cent in 2011 from 2010, with fatalities dropping 9.1 per cent and injuries decreasing 4.9 per cent. Of the estimated 2,025 fatalities in 2011, speeding was cited as a contributing factor in approximately 24.8 per cent, down slightly from 25.0 per cent in 2010.
- Of fatally injured drivers tested for alcohol in 2010, 37.4 per cent had a positive blood alcohol concentration (BAC). Of fatally injured drivers with a positive BAC in 2010, 17 per cent had alcohol levels from 1 to 80 mg/dL. Thirty per cent had levels from 81 to 160 mg/dL per cent and 53 per cent had alcohol levels greater than 160 mg/dL, more than twice the legal limit. Of all fatally injured drivers who were tested, 19.9 per cent had a BAC that was more than twice the legal limit (160 mg/dL), 11.1 per cent were from 81 to 160 mg/dL and 6.4 per cent were from 1 to 80 mg/dL. The balance (62.6 per cent) did not test positive for alcohol.
- The National Collision Database (NCDB) On-Line was launched by Transport Canada in April 2012. It is a web-based application that contains national-level fatality and injury collision data pertaining to all reportable motor vehicle collisions on public roads in Canada and pools data provided by the 13 provincial and territorial jurisdictions. The application provides visitors to the website with the ability to query data and create custom statistical tables from 23 variables associated with collision, vehicle and person-level details. Please visit the National Collision Database Online (http://www.tc.gc.ca/VehicleCollisions) for more information.

- Manufacturers issued 444 recalls in 2012, affecting a total of 2,275,600 vehicles, tires and child car seats. This is consistent with the previous five-year average of 431 recalls per year. Of the 444 recalls issued in 2012, 81 (or 18 per cent) were influenced by Transport Canada's examination of complaints received by the public and the department's subsequent interactions with manufacturers and these 81 recalls affected 1.4 million vehicles, tires or car seats, or 64 per cent of the total recall population. Information on vehicle recalls is available at www.healthycanadians.gc.ca and www.tc.gc.ca/recalls.
- In August 2012, as required under the *Motor Vehicle Transport Act*, Transport Canada tabled in the House of Commons and the Senate annual reports for the years 2006, 2007 and 2008, which reported on the progress of the implementation of the rules and standards respecting the safe operation of extra-provincial trucking and bussing companies. It also included the available statistical information respecting trends of highway collisions in Canada involving motor vehicles operated by trucking and bussing companies. These data showed that when increased risk exposure is considered there has been an improvement in commercial vehicle safety in Canada.
- In 2012, early *ecoTechnology for Vehicles Program* (eTV) test results were used to develop regulatory and industry standards for cars and trucks. For example, under the auspices of the Canada-U.S. Regulatory Cooperation Council, eTV tested electric vehicle audible alert systems in collaboration with U.S. regulators to support the development of standards to enhance pedestrian safety. It also conducted comprehensive laboratory and track testing of commercially available low rolling resistance (LRR) tires and single-wide based (SWB) tires for heavy-duty trucks that may be used to meet the proposed heavy-duty vehicle emission regulations. eTV testing has found that these tires offer similar snow traction performance to conventional tires.
- The Canadian Council of Motor Transport Administrators conducted a comprehensive assessment of the safety of 15-passenger vans ending in 2012, the results of which were posted in February 2013. The study, which includes Transport Canada test data, shows that these vans were generally found to be as safe as other highway vehicles if maintained and operated properly. Electronic stability controls and proper tire inflation significantly improve the stability of these vehicles. The study recommends that these vans would benefit from guidelines on tire maintenance, passenger loading and the requirements under the National Safety Code. These guidelines were posted by CCMTA in February 2013.
- The Council of Deputy Ministers Responsible for Transportation and Highway Safety is sponsoring a large-scale study of driving behaviour. With funding support from federal, provincial and territorial transportation agencies, the Canadian Naturalistic Driving Study (CNDS) will analyze driver behaviour in normal day-to-day vehicle operations. One hundred twenty-five private vehicles in and around Saskatoon, Saskatchewan will be outfitted with cameras and sensors to collect data on every trip made by the vehicle under normal operation. The data collected will include detailed data on driving behaviour and the interaction of driver, vehicle and environment over an extended period of time. Preparatory work was completed in 2012 and the first vehicles are expected to be on the street in 2013.

Security

- Transport Canada, in consultation with industry stakeholders, completed a risk-based security analysis of international bridges and tunnels and throughout 2012 has been pursuing voluntary Memoranda of Understanding with various international bridge and tunnel owners and operators, with the aim of enhancing security at these facilities.
- In October 2012, the Steering Committee for Rail and Urban Transit Security Standards Development, a collaborative body that includes Transport Canada and industry partners, approved the Code of Practice on Public Security Awareness Programs. This Code of Practice helps guide operators in developing public security awareness programs tailored to their own operations.

Transportation of Dangerous Goods

- In 2011 it was estimated that over $24 billion in chemical products were produced and shipped in Canada. Canada's shifting trade patterns towards Asia as well as increased resource development in Northern Canada is expected to alter both the nature and the volume of dangerous goods using Canada's transportation system.
- Dangerous goods are shipped or received at more than 40,000 business sites across Canada. Transport Canada estimates that 70 per cent of dangerous goods (by weight) are transported by road, 24 per cent by rail and 6 per cent by marine. A very small quantity of dangerous goods, accounting for less than 1 per cent, is transported by air.
- The most common dangerous goods commodities transported in Canada are crude petroleum oil, gasoline and fuel oils, representing 77 per cent of all dangerous goods transported by road.
- Changes in the quantity and movement of dangerous goods in Canada will reflect broader economic trends, such as the significant increase in trade with Asia and the anticipated economic development in Northern Canada.
- In 2012, there were 398 accidents involving dangerous goods (incidents where regulations required a report to Transport Canada). This is a 15-percent increase over 2011, when there were 345 incidents, but is only 9 per cent above the five-year (2008–2012) average.
- In 2012 there were 59 injuries and two fatalities associated with reported dangerous goods accidents. Of those, 13 injuries and no deaths were attributed to the dangerous goods themselves, while the remainder were attributed to the actual accident. From 2008 to 2012, there was an average of nine injuries per year attributed to dangerous goods.
- Accidents were almost three times more likely to occur during loading or unloading at transportation facilities as compared with actual transport, with road accidents representing over 95 per cent of in-transit dangerous goods accidents. The remainder occurred during transit by rail (2 per cent), air (2 per cent) and marine (1 per cent).
- Almost two-thirds of dangerous goods accidents involved Class 3, Flammable Liquids (64 per cent) while Class 8, Corrosives and Class 2, Gases accounted for 18 per cent and 9 per cent of accidents respectively.
- The top two categories of underlying factors contributing to accidents were human error (57 per cent) and equipment (34 per cent), which includes gauges, valves, vents, closures, hoses and more. This remains consistent with the previous year's figures.
- Transport Canada's Canadian Transportation Emergency Centre, CANUTEC, provides 24/7 immediate technical emergency response advice and assistance in handling dangerous goods to first responders (firefighters, police, ambulance) and the Canadian public. In 2012 CANUTEC provided assistance in 1,042 emergency situations and handled 22,888 telephone calls.
- In 2012, CANUTEC helped produce a new edition of the Emergency Response Guidebook (ERG). The ERG is a joint Canadian, U.S., Mexican and Argentine effort to harmonize emergency response measures. Distributed to all members of the Canadian First Responder community, the Guide provides critical expert knowledge and guidance for dealing with dangerous goods incidents.
- In September, under the auspices of the *Regulatory Cooperation Council (RCC)*, the U.S. and Canada signed a Memorandum of Cooperation to advance regulatory harmonization, mutual recognition of container approvals and better alignment of Canadian and U.S. standards on the containment of dangerous goods in transport.

- Canada's Gateway and Trade Corridor approach emphasizes domestic partnerships and international engagement in order to align transportation policies and investments with international commerce in support of a stronger economy.
- Canada's Asia-Pacific Gateway reached a significant number of milestones in 2012, helping to solidify its role as a leading gateway for trade between North America and the growing economies of the Pacific Rim. Prince Rupert's Fairview Container Terminal reached 500,000 TEUs (20-foot equivalent units) and is one of the fastest growing ports in North America. Port Metro Vancouver, Canada's largest port, continued strong import and export growth and is North America's busiest export port by tonnage. Canada's success with the APGCI was the subject of a detailed study by the U.S. Federal Maritime Commission, which in many respects validated the approach to public-private collaboration, strategic investment in infrastructure and a strong national policy framework.
- In 2012–13, the federal APGCI Transportation Infrastructure Fund invested $133.5 million to improve infrastructure in British Columbia's Lower Mainland. Projects completed include the opening of Highway 17, the eastern section of the new South Fraser Perimeter Road ($365 million), the Brooksbank Avenue Underpass along the North Shore of Burrard Inlet ($8.1 million) and the 80th Street Overpass project of the Roberts Bank Rail Corridor ($7.2 million). The northeast section of the South Fraser Perimeter Road in Vancouver region opened in December 2012, offering motorists a free, alternate route via the Pattullo Bridge and the perimeter road. The APGCI is providing $365 million towards this $1.26-billion project and the Province of B.C. the remaining $899 million.
- The Gateway Performance Table began in 2008 as a forum for measuring the efficiency and competitiveness of the Asia-Pacific Gateway. In 2012, the Intermodal Committee, which examines relevant metrics and works toward optimizing operations and productivity for inbound and outbound supply chains, developed a monthly scorecard that the committee uses to address operational choke points.
- Implementation of the Atlantic Gateway and Trade Corridor Strategy continued with nine infrastructure projects completed or nearly completed by the end of 2012, including port improvements at Belledune, Halifax and Saint John and airport investments at Charlottetown, Fredericton, Gander and Halifax. Another significant project completed was the twinning of New Brunswick's Route 1 to the Maine border. The Gateway's competitive advantages and assets were promoted to potential users and business decision-makers in Europe, the United States, South America and Asia. Policy and regulatory initiatives continued to be addressed in partnership with provincial governments and private-sector partners supported by Ministerial meetings with the Atlantic Gateway Advisory Council of senior private-sector executives.
- In support of the Ontario-Quebec Continental Gateway, engagement has been ongoing to identify stakeholder needs, impediments to freight transportation and potential solutions to freight issues. In particular, this includes collaboration between Transport Canada and the Société de développement économique du Saint-Laurent (SODES) (the St. Lawrence Economic Development Corporation) on optimizing the Ontario-Quebec maritime corridor and engagement with Metrolinx, Peel Region and the Grappe métropolitaine de la logistique et du transport de Montréal (Logistic and Transportation Metropolitan Cluster of Montreal, or Cargo Montreal) on the development of freight transportation initiatives supporting international trade.
- Key international agreements were signed during 2012, including a memorandum of understanding with India that aims to strengthen cooperation in road infrastructure and intelligent transportation systems and a strategic agreement with China on civil aviation, building on a leader-level commitment. High-level bilateral discussions with key international partners, including the United States, China, India, South Korea, Japan and Turkey served to identify areas for enhanced engagement and cooperation.
- Despite recent gains in efficiency at British Columbia ports and relative stability in rail performance, the average end-to-end transit time for container imports from Shanghai to Toronto via the Asia Pacific Gateway increased by 5.7 per cent in 2012. The increase was mainly due to a 7.9 per cent increase in ocean-vessel transit times crossing the Pacific. Containers entering through the Port of Montreal had a 7.8 per cent improvement in average land-side transit time compared to 2011.

- Transport Canada's pioneering efforts in performance measurements is attracting the interest of international organizations, such as the World Bank, the Asia-Pacific Economic Cooperation (APEC) and the Inter-American Development Bank. These efforts have allowed the department to engage in supporting APEC's commitment to increase supply-chain efficiency by 10 per cent by 2015, reducing time, costs and uncertainty.
- In April 2012, Winnipeg's CentrePort Canada successfully shipped 250 tonnes of soybeans in a Radio Frequency Identification Technology (RFID) tag-equipped container from Manitoba to Chongqing, China. The RFID tracks the shipment throughout its journey and ensures its integrity. This trial follows a similar test in February when a container of pork meat was sent from Manitoba to Chongqing using the same technology.
- In 2012, the Standing Committee on Transportation, Infrastructure and Communities conducted a study of Innovative Transportation Technologies. This study examined the major areas of innovation in the Canadian transportation sector and attempted to identify existing regulatory impediments that limit the commercialization and adoption of innovative new technologies. The final report is expected to be tabled in 2013.
- In 2012, the Canadian Transportation Agency released new resource tools designed to assist persons with disabilities and transportation service providers. The Resource Tool for the Carriage of Mobility Aids on Board Planes, Trains and Ferries was developed to raise awareness of travellers, travel agents and service providers in the planning and preparation of travel involving people with mobility aids. Accessible Transportation Complaints: A Resource Tool for Persons with Disabilities and A Resource Tool for Service Providers were designed to improve access to and understanding of the Agency's process for resolving accessibility disputes through formal and informal resolution options.
- In Toronto, construction on the Union Pearson Express connecting the busiest passenger rail and air hubs in the country—Union Station and Pearson International Airport—is well underway and aims to be completed in time for the 2015 Pan/Parapan American Games. The total budget for the Union Pearson Express is $456 million (in 2010 dollars), including $128 million to build the three-kilometre rail spur and a new passenger station at Pearson. The federal government, through the Canada Strategic Infrastructure Fund, is providing $70.8 million to upgrade the Georgetown rail corridor, which will be used by both the Union Pearson Express and GO Transit commuter trains as part of its $385 million contribution to the GO Transit Rail Improvement Program (GO TRIP).
- In Montreal, Aéroports de Montréal (ADM) has submitted an alternative approach to its rail shuttle project between downtown Montreal and Montreal-Trudeau Airport: the Aerotrain. Instead of adding new tracks to increase rail capacity between downtown and Dorval, ADM has proposed the construction of an elevated track system for a light-rail electric train. The Airport authority is continuing to flesh out its proposal in consultation with various stakeholders.
- Recent independent research studies have reported on the value of Canada's Gateways approach. For example, *The Containerization of Commodities: Integrating Inland Ports with Gateways and Corridors in Western Canada* by the Van Horne Institute examines the potential for inland ports to help manage the supply of shipping containers for exports and *Multimodal Freight Transportation Within the Great Lakes–Saint Lawrence Basin* for the Transportation Research Board of the United States by CPCS Transcom discusses Canada's Gateways and Trade Corridors as an effective approach to multimodal planning and multi-jurisdictional funding.